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ABSTRACT

The TELSTAR project serves preschool handicapped children in all categories of disabilities in a three-county rural area of Northeastern Michigan. Services are home-based from ages 0 to 3, with the children placed in appropriate group programs at approximately age 3. The assessment and evaluation of child progress is done using a standardized assessment tool and by coding video tape segments. The Alpern-Boll Developmental Profile provides performance age scores in five areas of development and, when assessment is done each 3 months or so, provides a growth profile. The assessment by video tape provides information on types and quality of a child's communications and behaviors which are coded for frequency and duration and contribute to the growth profile. (Author/SBH)

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ASSESSMENT BY DEVELOPMENTAL PROFILE
AND BY
CODING OF VIDEO TAPES

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TELSTAR--A Project for Rural Preschool Handicapped
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The TELSTAR project serves preschool handicapped children in all categories of disabilities in a three-county rural area of Northeastern Michigan. Some families live as far as 50 miles from the TELSTAR office.

Services are home-based from ages 0-3, with the children placed in appropriate group programs at approximately age three.

The assessment and evaluation of child progress is done by the use of a standardized assessment tool and by coding video tape segments. The Alpern-Boll Developmental Profile provides performance age scores in five areas of development and, when assessment is done each three months or so, provides a growth profile.

The assessment by video tape provides information difficult to acquire by the above methods. Types and quality of a child's communications and behaviors are coded for frequency and duration and contribute to the growth profile.

Both assessment procedures have been very useful in the educational management of handicapped children.

ASSESSMENT BY DEVELOPMENTAL PROFILE
AND BY
CODING OF VIDEO TAPES

Most of the Northern Michigan hills and valleys are covered with pine and birch--from Lake Michigan on the West to Lake Huron on the East. Over the years, a few hearty souls have cleared and farmed some of the soil, but the harsh winters and short growing seasons do not encourage this. There is some industry using the native limestone and forest products, but many people earn a living catering to recreational interests: the invasion of hunters in the fall, fishermen during various seasons, skiers and summer guests to the lakes, resorts and camp sites. There is chronic high unemployment, and many who are employed do seasonal work or are away from home as truck drivers and Great Lakes seamen.

The nearest four-year educational institution with graduate offerings is 165 miles to the south.

The Intermediate School Districts serve large geographic areas in which most children ride buses to consolidated schools.

Michigan's law to provide equal education to the handicapped was passed in 1971 and includes children, ages 0-25. Implementation was expected by 1973, although no special funding was provided by the legislature.

In 1973 the superintendent of the Alpena-Montmorency-Alcona Intermediate School District applied for an Early Childhood Bureau of Education for the Handicapped demonstration grant, and then began preparing the community for thinking in terms of preschool

programming for handicapped children. University of Michigan special educators were invited to teach extension classes in Early Childhood and Exceptional Children with emphasis on mainstreaming. Through this experience, people at different levels in education worked together to be ready to start receiving the handicapped.

The purpose of the TELSTAR demonstration grant was to determine and field test a delivery system of educational services to preschool handicapped of all categories in a rural, sparsely populated area where winter weather conditions make travel difficult many months of the school year. All community agencies dealing with young children have been banded into a network for child-find and cross referral and working together. TELSTAR assumes responsibility for coordinating these services for many families.

Some of the children and families who were found to be eligible for services by TELSTAR live as far as 40 or 50 miles from the Intermediate School District offices. The service model, which was found to be most practical and effective, includes home programming for families with handicapped infants and toddlers, with group placement and continuing family involvement after three years of age. TELSTAR uses already existing groups such as Title I, Head Start, Special Education, or if there is no other group available, a Day Care Home has worked as a placement. Mainstreaming is an important consideration, as is a group placement as near to the child's home as possible to avoid lengthy transportation. The services provided include prescriptive programming for both children and families.

Staff involved in programming include the Educational Strategist, home teacher, physical, speech and hearing therapists, and psychologist. When appropriate, the local Mental Health agency is used as a resource.

In order to determine the effectiveness of the program for children, evaluation is done in three ways: 1) Observation by staff and parents, 2) Analysis of test data, 3) Information coded and graphed from video tapes.

Observation

Observation is simply this: Do parents and teachers feel that the child has made progress in the program? Parents are asked this in their end of the year evaluation questionnaire.

Test Data from Alpern-Boll Developmental Profile

After experimenting with screening and assessment tools, TELSTAR staff adopted the Alpern-Boll Developmental Profile for use in initial and on-going assessment. This test can be administered by programmers who are not trained psychologists and provides the assessor with functioning age scores in five developmental areas. The authors state that the Profile is not intended to be a comprehensive psychological evaluation, but there is a highly significant correlation of .84 between the Stanford-Binet and the Profile's Academic Age from which an IQ score can be derived. Dr. Boll indicates that averaging the age scores from the five sub-tests to get an average functioning age (AFA), "captures the abilities and difficulties that the child is experiencing," better than the Academic Age alone.

The information for the Alpern-Boll scores can be provided by parent interview in the home or by a teacher evaluating her pupils and can be completed in a 20 - 40 minute time period.

The assessor administers the Alpern-Boll each three months or as often as deemed important. Chart I is a profile graphed for one child over a 12-month time period. Point A is the assessment at entrance to the program, at which time a psychological assessment indicated an IQ score of 54 on the Cattell Infant Intelligence Scale.

The goal of the TELSTAR Project is to provide developmental programming and appropriate educational curricula for handicapped children ages 0 - 5 years and their families. Specifically, the goal is to increase the child's rate of growth per month.

Using the scores from the Alpern-Boll subtests, the analysis of data from the 1976 evaluation of child progress in the TELSTAR Program indicated that:

- 1) 52 percent of the children made normal* or greater than normal gains in the Academic area.
- 2) 50 percent of the children made normal or greater than normal gains in Communication and Social growth areas.
- 3) 47 percent made normal or better gains in Self Help.
- 4) 41 percent made normal or better gains in Physical area.

*A normal gain is considered to be a one month gain in a one month period of time. This is considerably higher than the expected gains established at entrance for this population of handicapped children.

Assessment Using Video Tapes

There is assessment and evaluation information vital for programming for handicapped children which educators need and which is difficult to acquire by the above methods. TELSTAR has found that the use of video tape can provide a very effective record of child behavior.

Video tapes have been a useful and effective way for TELSTAR staff to achieve its many goals. They have been used in three ways within the program:

- 1) Giving information on child development and training parents in child management techniques.
- 2) Recording behaviors and plotting progress of the child for staff training and programming for children.
- 3) Demonstrating and promoting of the model and educational procedures for staff of other agencies.

This paper is concerned with the use of video tapes for recording, assessing and evaluating child behaviors. Video tapes for assessment are effective for the following reasons:

- 1) They capture behaviors for a permanent visual record. Behaviors which have faded into time can be documented using video tape.
- 3) The privilege of replay allows staff to assess many types of behaviors using the behaviors observed on one segment of tape.
- 3) It is cost effective--it uses resources (staff time and energy) in an efficient manner.

Information different from that assessed by tests and check-lists can be recorded and coded using video tapes.

Educators of the exceptional child need to identify behaviors which cannot be set up in a testing situation, behaviors which can be observed best in appropriate natural settings and which

represent the child acting on his own initiative. Video tape can capture such behaviors, and the privilege of replay allows the educator the opportunities to measure their quality, duration and frequency.

TELSTAR staff members have adapted the Michigan Symbol and Communication Profile copyrighted 1975 by Dr. Wanda Milburn of University of Michigan. Three areas of communication and behavior are charted for coding. The first is titled "Familiar Forms" and includes such things as eye-to-eye contact, eye-object-place contact and body gestures. The second, "Units and Words," includes vocalizations; and the third, "Behaviors," includes types and the quality of a child's actions. The frequency of or length of time a behavior such as eye-eye contact is maintained is important to educators who are developing individualized intervention strategies.

The opportunity to replay a tape permits any or all staff members dealing with a handicapped child to code and graph as many of these areas as seems important for the child's programming. Program goals would determine the items of high priority for a child.

The Intermediate School District Special Education Department, of which TELSTAR is a part, purchased a portable video tape deck and camera. The TELSTAR Educational Strategist and home teacher operate the equipment and do the video taping in the homes of program children. The home teacher can do this alone, taping the child with the mother as interactor, or she can choose to make a tape on a day when a professional, such as a physical therapist, is visiting. Unstructured situations in the child's natural setting

provide the best video segments for coding. Using the tape for assessment back in the TELSTAR office saves the professional staff time otherwise required in going to the child--often many miles distant. Taping is done at six-month or more frequent intervals, and information gathered by coding is shared at staffings. Parents are asked to sign for permission to make and use the video tapes of their children.

The Michigan System uses, for research purposes, a 45-minute video tape segment, coding two-minute random selections from this tape. TELSTAR has modified the Michigan System and uses 30-minute, half-inch reel-to-reel tape with its equipment. Fifteen to 30-minute segments are made at one time in an informal setting, allowing the child to choose activities within the environment and solicit and respond to adults in unstructured situations. The 15-minute segment is then coded.

Charts II a, b, c were used to code behaviors of one child, Joey. The graphs on Chart III a and b compare for frequency and duration the information from these charts with other charts made four months earlier.

The information from the coding allows staff to analyze the child's developmental patterns and appropriateness of his present programming.

TELSTAR staff feel that the use of information from video tape and the feedback parents receive from the use of the media with their children has contributed to the program success.

REFERENCES

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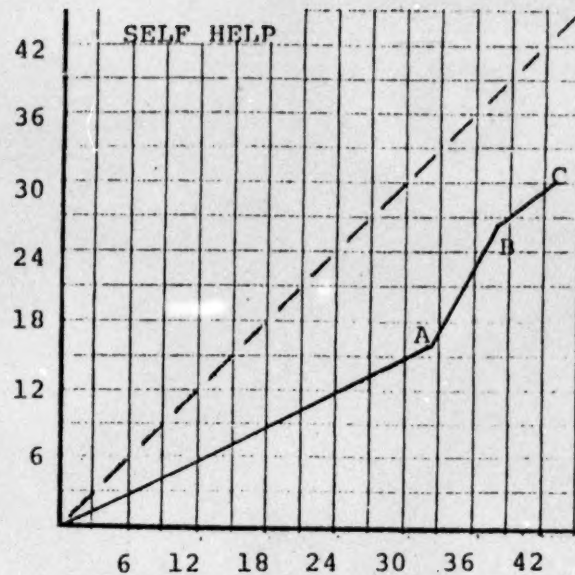
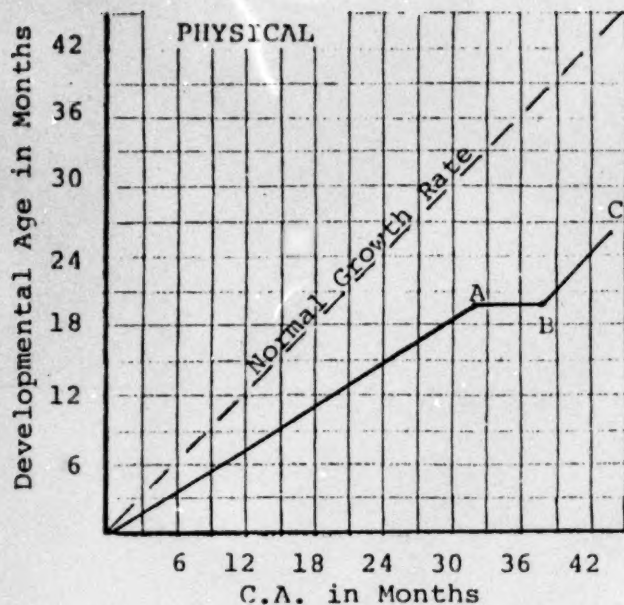
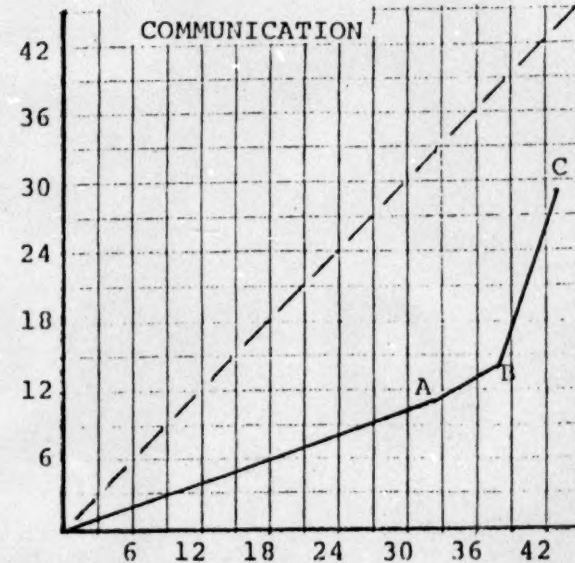
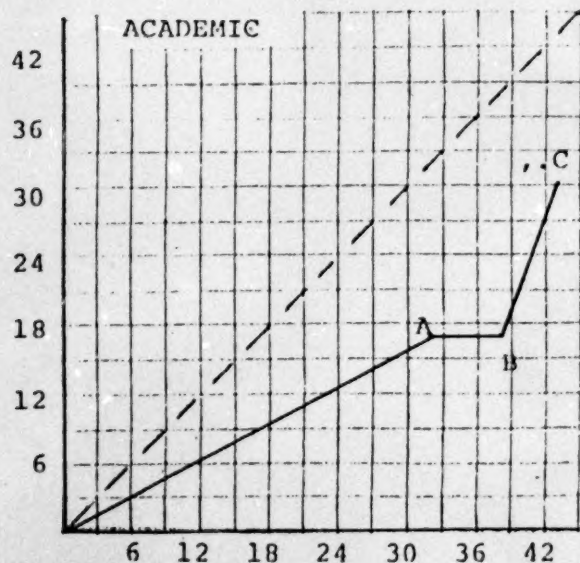
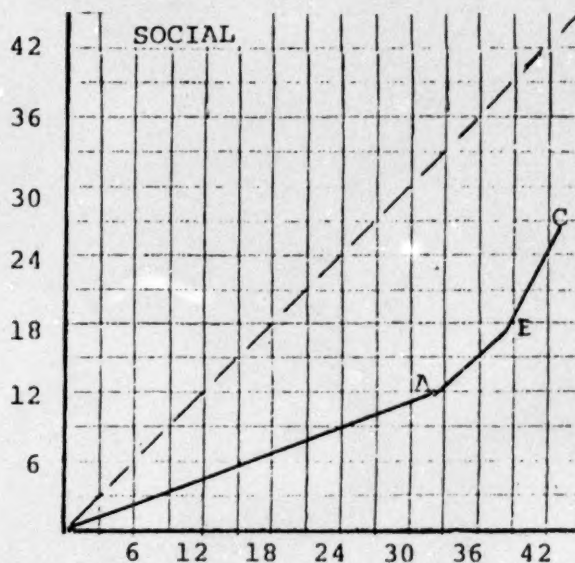


CHART I
DEVELOPMENTAL PROFILE

	Date	CA (MO.)	IQ	AFA
A.	5-07-76	32	53	46
B.	11-03-76	38	46	48
C.	4-28-77	44	72	72



Joey
3-16-77
3 yr. 7 mo.

Video - 15 min. total

COMMUNICATION PROFILE

FAMILIAR FORMS	TOTAL
Head Gesture	
Eye Gesture	
Eye-Eye Contact	
Person 1 sec. 2 sec. $1\frac{1}{2}$ sec. $\frac{1}{2}$ sec. 1 sec. $1\frac{1}{2}$ sec. 1 sec.	8+ sec.
Camera 2 sec. 2 sec. $4\frac{1}{2}$ sec.	$7\frac{1}{2}$ sec.
Eye-Object-Place Contact 	14 min. 45 sec.
Mouth Gesture	
Smile 1 sec. 2 sec. $1\frac{1}{2}$ sec. 1 sec. 1 sec.	$6\frac{1}{2}$ sec.
Hand Gesture Interpretations: ("there") ("look at this") ("can't catch me")	3
Touch ("here, for you")	1
Arm Gesture (threw car: "I don't want this")	1
Shoulder Gesture	

INTERPRETATION:

Joey
3-16-77
3 yr. 7mo.

Video - 15 min. Total

COMMUNICATION PROFILE

UNITS	TOTAL
Index Finger	
Vocal Units / min. 14 sec. 60 sec. 58 sec. 60 sec.	4 min. 12 sec.
Head Unit	

INTERPRETATION:

WORDS	
Meaningful Words "ee"	1
Vowels ē oo ä oi ă ahee ō	7
Consonants c m n s v h d b	8
Labial Words	

INTERPRETATION:

"monkey"?

Adapted from Michigan Symbol and Communication Profile ©1975 Dr. Wanda Milburn
SED School of Ed, U of M

Joey
3-16-77
3 yr. 7 mo.

Video - 15 min. total

BEHAVIORAL PROFILE

BEHAVIORS	TOTAL
RANDOM	
GOAL ORIENTED:	
1. Adult-Directed	
Single Goal 8½ sec. 8 sec. 69 sec.	85 sec.
Sequential Goal	
2. Self-Directed	
Single Goal —————→	10½ min.
Sequential Goal 91 sec. 33 sec. 60 sec.	3 min. 4 sec.
SELF-STIMULATING	
MUTUAL IMITATION	

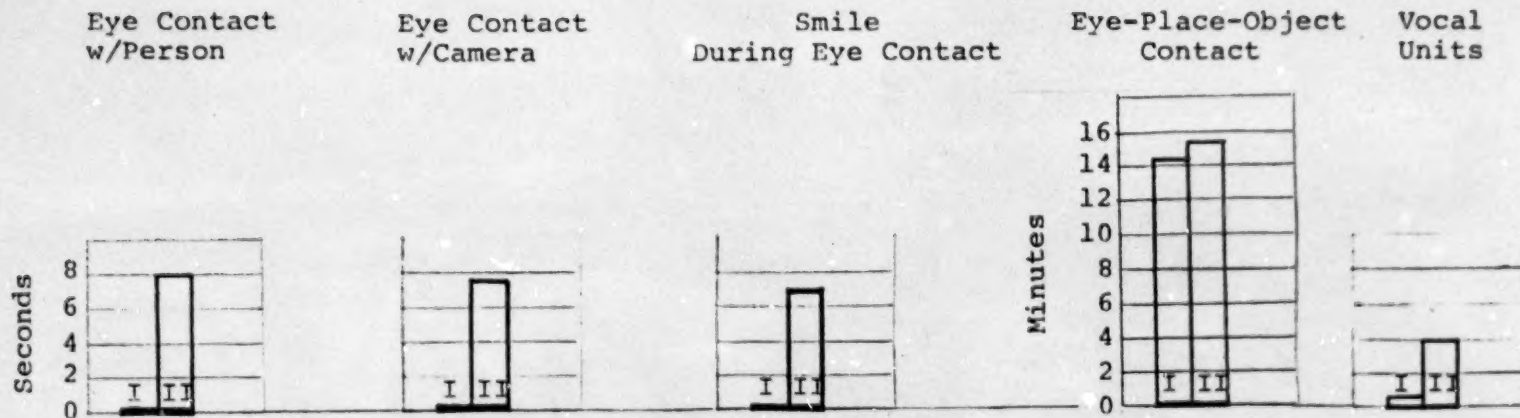
INTERPRETATION:

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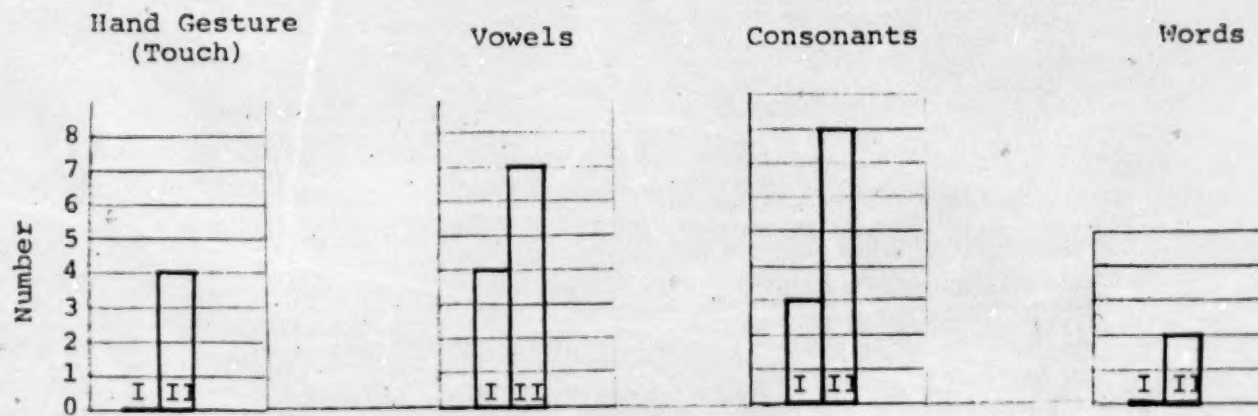
CHART III - a

COMMUNICATION PROFILE

T I M E ¹



F R E Q U E N C Y ¹



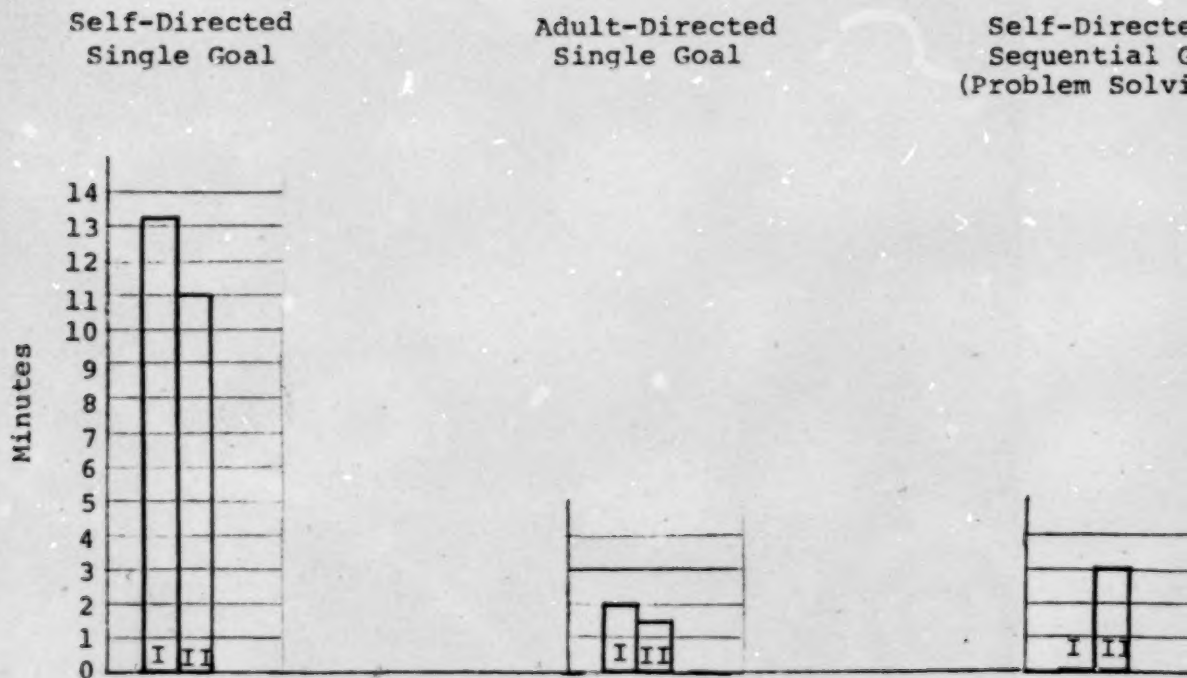
¹video Observation I (11-24-76) (C.A.--3 yr., 3mo.)

Video Observation II (3-16-77) (C.A.--3 yr., 7mo.)

Joey

CHART III - b
BEHAVIOR PROFILE

T I M E ¹



¹Video Observation I (11-24-76) (C.A.--3yr, 3mo)
Video Observation II (3-16-77) (C.A.--3yr, 7mo)